

**ABSTRACT**

A core for a charge air cooler comprises inner and outer concentric tubes providing an axially extending annular passageway for flow of a fluid, preferably a liquid coolant. A first inlet and a first outlet are provided at the ends of the axial annular  
5 passageway. Arranged on an outer surface of the outer tube is at least one circumferential fluid flow passageway for flow of a fluid, preferably air. Each circumferential flow passageway is provided with a corrugated strip fin comprising a plurality of rows of corrugations. The core is combined with an outer housing to form a heat exchanger. The housing is provided with an inlet and an outlet for the  
10 fluid flowing through the circumferential flow passageways. Other embodiments are disclosed in which the heat exchanger is adapted for use with three fluids and in which additional cooling capacity is provided by the provision of coolant passageways in the housing.